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Chicago, Illinois 60611

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Supplement 4

Dental School Attrition

Supplement 4 to the
Annual Report 87/88
Dental Education

Council on Dental Education

DENTAL REPORTS PUBLISHED BY THE DIVISION OF EDUCATIONAL MEASUREMENTS

The Division of Educational Measurements publishes the Annual Report on Dental Education and supplemental reports on various aspects of dental education yearly. These reports have been listed below according to a revised numbering system instituted this year. As each report is produced, the roster below will appear on the report's inside cover identifying with an "X" those reports which are available. It should be noted that the "Confidential" reports include information which was collected by the Division with the understanding that the resultant reports would not identify specific educational institutions. In this regard, these reports use randomly assigned code numbers for each predoctoral program rather than the name of the institution with the initial distribution of these reports limited to dental schools.

Currently Available		Previous Designation
X	Annual Report on Dental Education	-
X	Supplement 1: Dental School Admission Information	7
X	Supplement 2: Trend Analysis	11
X	Supplement 3: Dental School Tuition	13
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CONFIDENTIAL REPORTS

Supplement 7:	Analysis of Dental School Finances	-
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I. Introduction

The Division of Educational Measurements annually gathers student withdrawal and attrition data from United States dental schools by means of the Survey of Predoctoral Dental Educational Institutions as well as through withdrawal forms submitted for each student who withdraws from school. A computer system is used by the Division of Educational Measurements to maintain data regarding enrollment figures as supplied by dental schools in the United States. The computer system (DEMS) permits the Division to prepare class and graduate rosters for each dental school as a part of the annual survey instrument. The DEMS system, initiated with the 1986-87 academic year, became fully operational in managing the 1987-88 enrollment and graduate listings.

The DEMS system affords the Division the opportunity to track individuals who withdraw from dental school, transfer to another institution, repeat academic years, or suspend their studies. With this capability, the Division's supplemental report, Dental Student Attrition can provide a more detailed analysis of the students withdrawing from the dental school where they initiated their predoctoral education program. In this regard, the analysis which follows provides information and projections which are based on the first enrolling class to be fully entered on the DEMS system.

In preparing Supplement 4: Dental Student Attrition, every effort was made to assure that comparisons could be drawn to earlier editions of the report. However, to clarify any findings which can be drawn from the report, the following definitions should be understood:

WITHDRAWALS: Identifies students who withdrew from the class at the dental school where they initiated their predoctoral education program.

ATTRITION: Reports the number of students who are not currently enrolled in a predoctoral program.

REPEATERS: Indicates the total number of students repeating an academic year. This figure includes students enrolled at either the initial school of enrollment or the school to which they transferred.

TRANSFERS: Identifies the number of predoctoral students who have transferred to a different dental school to continue their predoctoral program. These students DO NOT include repeating students.

As indicated in Table 1, the number of students withdrawing from the class and school in which they initiated their predoctoral program increased yearly between 1977-78 and 1985-86. Statistics for the 1986-87 academic year freshman class show a change in this trend.

The number of students withdrawing from the 1986-87 first-year class was 316 or 6.94% of the total first-year enrollment. This figure represents an 83 or 1.3% reduction from the number reported for the 1985-86 first-year class. The number of students withdrawing during the 1986-87 academic year is the lowest reported figure for the past four years.

Table 1
Dental School Freshman Withdrawal/Attrition, 1977-78 to 1986-87

Academic Year	1st-Year Enrollment	Total 1st-Year Withdrawals #	%	Confirmed Attrition #	%	Total Repeaters #	%	Total Transfers #	%
1977-78	5,954	200	3.36						
1978-79	6,301	230	3.65						
1979-80	6,132	216	3.52						
1980-81	6,030	259	4.30						
1981-82	5,855	290	4.95						
1982-83	5,498	306	5.57						
1983-84	5,274	357	6.77						
1984-85	4,937	357	7.23						
1985-86	4,843	399	8.24						
1986-87	4,554	316	6.94	226	4.96	67	1.47	23	0.51

The computer program developed to assess freshman withdrawal/attrition was applied to the remaining 1986-87 academic classes; Table 2 shows the results of that analysis.

Table 2
Dental School Total Enrollment Withdrawal/Attrition, 1986-87

Academic Year	Total Enrollment	Total Withdrawals #	%	Confirmed Attrition #	%	Total Repeaters #	%	Total Transfers #	%
1st Year	4,554	316	6.94	226	4.96	67	1.47	23	0.51
2nd Year	4,544	175	3.85	126	2.77	32	0.70	17	0.37
3rd Year	4,551	78	1.71	48	1.05	19	0.42	11	0.24
4th Year	5,004	34	0.68	24	0.48	10	0.20	0	--

Applying the percentage of withdrawals, attritions, repeaters and transfers experienced by all academic classes in 1986-87 to the freshman class; the 1986-87 class would experience, at the conclusion of their predoctoral program, 576 (12.65%) withdrawals. These withdrawals are projected to include: 51 (1.12%) students transferring; 126 (2.77%) repeating students and 410 students leaving dental education for an actual attrition rate of 9.00%.

The number of first-year withdrawals that occurred in private and private-state related schools was approximately the same as in public schools. Private and private-state related schools experienced 154 withdrawals while 162 students withdrew from public schools. The majority of freshmen who withdrew did so voluntarily (64.8%). More than one-half (54.7%) of all freshmen withdrawals were in good academic standing when they withdrew.

II. Personal Reasons for Withdrawal

Personal reasons for withdrawal, as in previous years, outnumbered academic reasons (Table 3), while change of career objective and transfer to other dental school remain as the two largest single reasons for withdrawal (Table 4). As reported by the dental schools, most of the students who withdrew for personal reasons were in good academic standing and had no reported difficulty with coursework. During the 1986-87 year, 15 students left dental school explicitly to enter a medical school and 59 students left a particular dental school to transfer to another dental school. Financial reasons were given for the withdrawal of eight students, five freshmen, two sophomores, and one junior.

Table 3
General Reasons for Freshman Withdrawal, 1982-83 to 1986-87

General Reasons	1982-83	1983-84	1984-85	1985-86	1986-87
Withdrawls for Personal Reasons	53.9%	57.9%	46.8%	52.8%	53.2%
Withdrawls for Academic Reasons	46.1%	42.1%	53.2%	47.2%	38.0%
Problems in Didactic Courses Only	25.4%	21.7%	33.3%	28.3%	25.9%
Problems in Technic Courses Only	3.0%	4.2%	4.2%	3.8%	1.9%
Problems in Didactic & Technic	17.7%	16.2%	15.6%	15.0%	10.1%

Table 4
General Reasons* for Withdrawal, 1986-87

General Reason	Freshman	Sophomore	Junior	Senior	Total
		Personal Reasons			
Change of Career Objective	42	15	12	2	71
Other General Reasons	70	34	15	8	127
Transfer to Other Dental School	27	21	10	1	59
Financial Problems	5	2	1	0	8
Family Problems	3	9	1	0	13
Poor Health	6	4	3	2	15
Lack of Interest	4	4	0	0	8
Enter Medical School	6	8	1	0	15
Emotional Problems	0	1	1	0	2
Disciplinary Suspension	5	1	2	0	8
Indefinite Leave of Absence	16	16	6	3	41
		Academic Reasons			
Problems in Didactic Courses Only	82	24	4	1	111
Problems in Technic Courses Only	6	7	2	1	16
Problems in Didactic and Technic	32	17	2	3	54
Problems in Clinic	0	2	16	9	27
Indefinite Leave of Absence	12	10	2	4	28

*Reasons for withdrawal are sometimes not specified.

III. Academic Reasons for Withdrawal

In annual studies of dental freshman withdrawal, the DAT scores of students withdrawing because of academic problems were compared with the DAT scores of all freshmen. Since 1975, when this analysis was initiated, the studies have indicated that the percentage of withdrawing students with below average DAT scores was significantly greater than the percentage of all freshmen with below average DAT scores. This year again, there is a significant difference in the DAT scores of those who withdrew because of scholastic difficulty and those individuals withdrawing for personal reasons when compared with the average for all incoming freshmen. The DAT academic average for the 1986-87 first-year class was 4.38. The mean academic score for individuals withdrawing due to scholastic diffficulties was 3.33 while the mean score for students withdrawing for personal reasons was 4.23. The mean DAT science composite score for the entering 1986-87 class was 4.37. The mean science composite score for students withdrawing as a result of didactic problems was 3.14 while

individuals leaving dental school for personal reasons had an average of 4.34. Figures 1 and 2 graphically portray these differences. A study of students withdrawing from their predoctoral studies as a result of problems in technic course was not done due to the minimal number of individuals in this category (5).

FIGURE 1

DAT SCIENCE COMPOSITE SCORES VS. FRESHMAN WITHDRAWALS, 86-87

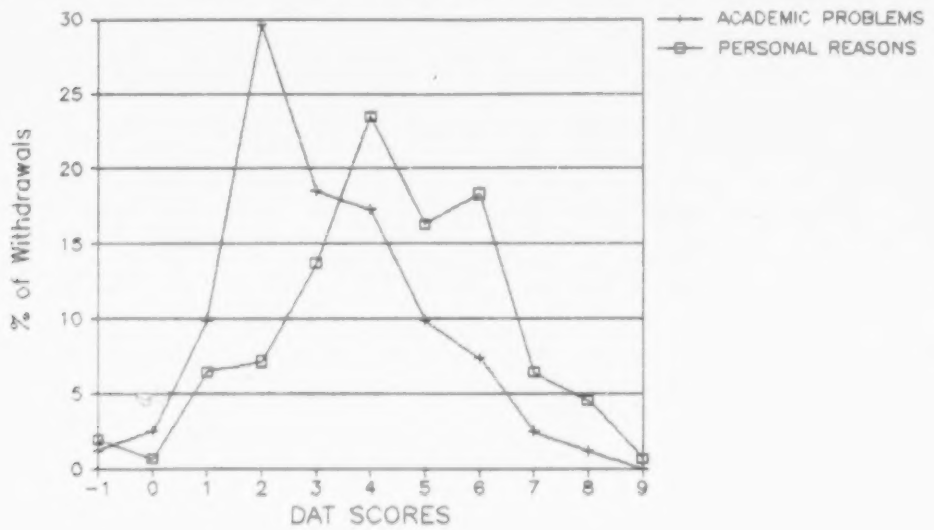
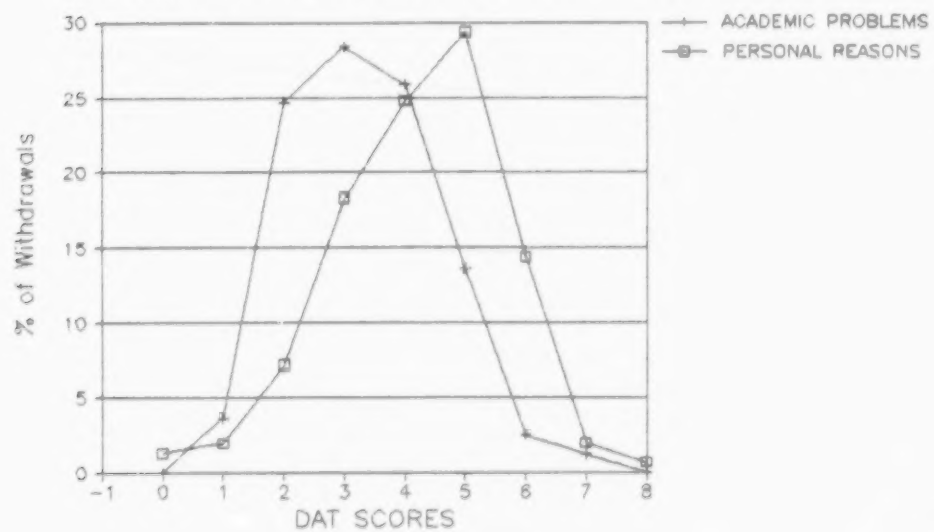


FIGURE 2

DAT ACADEMIC AVERAGES VS. FRESHMAN WITHDRAWALS, 86-87



IV. Minority Withdrawals

In 1986, women constituted 30.0% of the first-year class in United States dental schools and 27.1% of the total dental enrollment. Women made up 26.6% of the first-year withdrawals and 26.5% of the withdrawals from all four years. As can be seen from Table 5, with the exception of the second-year, the withdrawal rate for women in dental school was slightly lower than for men in 1986-87.

Table 5
Sex Differences: Withdrawals by Sex, 1986-87

	Freshman		Sophomore		Junior		Senior		Total	
Sex	N	%*	N	%*	N	%*	N	%*	N	%*
Male	232	7.32	127	3.82	57	1.73	27	0.71	443	3.26
Female	84	6.06	48	3.93	21	1.67	7	0.59	160	3.16

*The precent of both class and total enrollments.

An analysis of student withdrawal rates by ethnic caregories indicates that the percentage of minority students withdrawing from dental school is greater that the percentage of ethnic minorities comprising the 1986-87 freshman class. Table 6 demonstrates the increased percentages of ethnic minorities when comparing enrollment and withdrawal statistics.

Table 6
Freshman Withdrawals: Ethnic Minorities, 1986-87

Race	1st Year Enrollment	Percentage of Total Enrollment	Number of Withdrawals	Percentage of Total Withdrawals
American Indian	9	0.20	2	0.63
Asian/Pacific Islander	499	10.96	39	12.34
Black	286	6.29	28	8.86
Hispanic	316	6.93	24	7.59
White	3,444	75.62	204	64.56
Unknown			19	6.01
Total	4,554		316	

Table 7 indicates the number and percentage of withdrawals due to personal and scholastic reasons according to ethnic category for 1986-87. The table provides information for both the freshman and sophomore classes. It should be noted that neither applicants participating in the DAT nor students enrolled in predental programs are required to respond to questions regarding ethnicity. In this regard, the number of individuals not responding to the question are excluded from the table.

Table 7
General Reasons for Withdrawals:
Ethnic Minorities, Freshmen and Sophomores, 1986-87

Race/ Year	Total Number Withdrawn	Personal N	Personal %	Scholastic N	Scholastic %
American Indian					
Freshmen	2	1	50.00	1	50.00
Sophomores	2	1	50.00	1	50.00
Asian/Pacific Islander					
Freshmen	39	25	64.10	14	35.90
Sophomores	19	11	57.89	8	42.11
Black					
Freshmen	28	9	32.14	19	67.86
Sophomores	21	6	28.57	15	71.43
Hispanic					
Freshmen	24	16	66.67	8	33.33
Sophomores	6	4	66.67	2	33.33
White					
Freshmen	204	122	59.80	82	40.20
Sophomores	112	78	69.64	34	30.36

V. Conclusion

The DEMS computer system allowed the Division to revise its approach to reporting student withdrawals and attrition. Further, Supplement 4: Dental School Attrition reports the lowest withdrawal/attrition statistics for the past four years, reversing the trend of the last decade.

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